

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-14. (canceled)

15. (currently amended) An information recording medium, which can be recorded by an information recording apparatus or which can be reproduced by an information reproducing apparatus, on which one or a plurality of titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising:

an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

a play list information file for storing one or more a plurality of play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file by a unit of item play list which is logically accessible; and~~

an object information file for collectively storing  
object information which includes information for indicating  
address of the packet of the object data corresponding to each  
item; and

a disc information file for storing a plurality of  
information groups including, as reproduction control information  
for controlling the reproduction of said object data file, (i)  
play list specification information for specifying one play list  
information ~~which defines the play list to be reproduced from  
among the plurality of play list information stored in said play  
list information file,~~ (ii) Pre command information which  
indicates a command to be executed before the reproduction based  
on the one play list information, and (iii) Post command  
information which indicates a command to be executed after the  
reproduction based on the one play list information,

~~the title being logically comprising one or more than  
one of the plurality of information groups,~~

~~the Pre command information including a Pre command  
table on which a command group constructed of zero, one or more  
statements are written,~~

~~the Post command information including a Post command  
table on which a command group constructed of zero, one or more  
statements are written,~~

~~the Pre-command information and the Post-command information including a command pointer which is written separately from the Pre-command table and the Post-command table and which specifies the address of each command included in the Pre-command table and the Post-command table.~~

16. (currently amended) The information recording medium according to claim 15, wherein ~~the object data is constructed such that an entire stream including a plurality of portion streams, each of which comprises the content information, is multiplexed by a unit of packet, which is a physically accessible unit and which stores therein a piece of the content information,~~

said object ~~information recording medium~~ further comprising ~~an object information file for storing correspondence definition information which defines the correspondence relationship between a plurality of packets to be multiplexed and~~ a the plurality of portion streams which are constructed from the plurality of packets as another reproduction control information for controlling the reproduction of said object data file.

17. (cancelled)

18. (cancelled)

19. (currently amended) An information recording apparatus for recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium,

said information recording apparatus comprising:

a first recording device for recording an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

a second recording device for recording a play list information file for storing one or more~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item~~play list~~ which is logically accessible; and

a third recording device for recording an object information file for collectively storing object information which includes information for indicating address of the packet of the object data corresponding to each item; and

a fourth ~~third~~-recording device for recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file,~~ (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information,

~~the title being logically comprising one or more than one of the information groups,~~

~~the Pre command information including a Pre command table on which a command group constructed of zero, one or more statements are written,~~

~~the Post command information including a Post command table on which a command group constructed of zero, one or more statements are written,~~

~~the Pre command information and the Post command information including a command pointer which is written separately from the Pre command table and the Post command table and which specifies the address of each command included in the Pre command table and the Post command table.~~

20. (currently amended) An information recording method of recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium,

said information recording method comprising:

a first recording process of recording an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

a second recording process of recording a play list information file for storing one or more~~a plurality of~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item~~play list~~ which is logically accessible; and

a third recording process of recording an object information file for collectively storing object information which includes information for indicating address of the packet of the object data corresponding to each item; and

a fourth ~~third~~-recording process of recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file,~~ (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information,

~~the title being logically comprising one or more than one of the information groups,~~

~~the Pre command information including a Pre command table on which a command group constructed of zero, one or more statements are written,~~

~~the Post command information including a Post command table on which a command group constructed of zero, one or more statements are written,~~

~~the Pre command information and the Post command information including a command pointer which is written separately from the Pre command table and the Post command table and which specifies the address of each command included in the Pre command table and the Post command table.~~

21. (currently amended) An information reproducing apparatus for reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising:

an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

a play list information file for storing ~~a plurality of one or more~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file by a unit of item~~ play list ~~which is logically accessible; and~~

an object information file for collectively storing object information which includes information for indicating address of the packet of the object data corresponding to each item; and



a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file,~~ (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, ~~the title being logically comprising one or more than one of the plurality of information groups, the Pre command information including a Pre command table on which a command group constructed of zero, one or more statements are written, the Post command information including a Post command table on which a command group constructed of zero, one or more statements are written, the Pre command information and the Post command information including a command pointer which is written separately from the Pre command table and the Post command table and which specifies the address of each command included in the Pre command table and the Post command table,~~

said information reproducing apparatus comprising:

a reading device for physically reading information from said information recording medium; and

a reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the play list information file, the object information file and the disc information file~~reproduction control information and the play list information~~ included in the information read by said reading device.

22. (currently amended) An information reproducing method of reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped information unit, are recorded, said information recording medium comprising:

an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

a play list information file for storing ~~a plurality of one or more~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item~~play list~~ which ~~is logically accessible;~~ and

an object information file for collectively storing object information which includes information for indicating

address of the packet of the object data corresponding to each item; and

a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file,~~ (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the reproduction based on the one play list information, ~~the title being logically comprising one or more than one of the plurality of information groups, the Pre command information including a Pre command table on which a command group constructed of zero, one or more statements are written, the Post command information including a Post command table on which a command group constructed of zero, one or more statements are written, the Pre command information and the Post command information including a command pointer which is written separately from the Pre command table and the Post command table and which specifies the address of each command included in the Pre command table and the Post command table,~~

said information reproducing method comprising:

a reading process of physically reading information from said information recording medium; and

a reproducing process of reproducing the object data included in the information read by said reading device, on the basis of the play list information file, the object information file and the disc information file ~~reproduction control information and the play list information~~ included in the information read by said reading device.

23. (cancelled)

24. (cancelled)

25. (currently amended) A computer program product for controlling record and for tangibly embodying a program of instructions executable by a computer to make the computer function as at least one portion of a first recording device, a second recording device, ~~and a third recording device~~ and a fourth recording device,

the computer being provided in an information recording apparatus for recording one or a plurality of titles, each of which is a logically-grouped information unit, onto an information recording medium,

said information recording apparatus comprising:

said first reading device for recording an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

said second recording device for recording a play list information file for storing ~~a plurality of one or more~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file~~ by a unit of item~~play list~~ which is logically accessible; and

said third recording device for recording an object information file for collectively storing object information which includes information for indicating address of the packet of the object data corresponding to each item; and

said ~~third~~ fourth recording device for recording a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information~~ stored in said play list information file, (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command

information which indicates a command to be executed after the reproduction based on the one play list information,

~~the title being logically comprising one or more than one of the information groups,~~

~~the Pre command information including a Pre command table on which a command group constructed of zero, one or more statements are written,~~

~~the Post command information including a Post command table on which a command group constructed of zero, one or more statements are written,~~

~~the Pre command information and the Post command information including a command pointer which is written separately from the Pre command table and the Post command table and which specifies the address of each command included in the Pre command table and the Post command table.~~

26. (currently amended) A computer program product for controlling reproduction and for tangibly embodying a program of instructions executable by a computer to make the computer function as at least one portion of a reading device and a reproducing device,

the computer being provided in an information reproducing apparatus for reproducing at least one portion of recorded titles from an information recording medium on which one or the plurality of titles, each of which is a logically-grouped

information unit, are recorded, said information recording medium comprising:

an object data file for storing object data which is constructed by a unit of a packet which includes time information for indicating a reproduction process time~~constitutes a series of content information;~~

a play list information file for storing ~~a plurality of one or more~~ play list information including a plurality of item information which defines a reproduction sequence of the object data ~~stored in said object data file by a unit of item play list which is logically accessible; and~~

an object information file for collectively storing object information which includes information for indicating address of the packet of the object data corresponding to each item; and

a disc information file for storing a plurality of information groups including, as reproduction control information for controlling the reproduction of said object data file, (i) play list specification information for specifying one play list information ~~which defines the play list to be reproduced from among the plurality of play list information stored in said play list information file,~~ (ii) Pre command information which indicates a command to be executed before the reproduction based on the one play list information, and (iii) Post command information which indicates a command to be executed after the

~~reproduction based on the one play list information, the title being logically comprising one or more than one of the plurality of information groups, the Pre command information including a Pre command table on which a command group constructed of zero, one or more statements are written, the Post command information including a Post command table on which a command group constructed of zero, one or more statements are written, the Pre command information and the Post command information including a command pointer which is written separately from the Pre command table and the Post command table and which specifies the address of each command included in the Pre command table and the Post command table,~~

said information reproducing apparatus comprising:

said reading device for physically reading information from said information recording medium; and

said reproducing device for reproducing the object data included in the information read by said reading device, on the basis of the play list information file, the object information file and the disc information file ~~reproduction control information and the play list information~~ included in the information read by said reading device.

27. (cancelled)

28. (cancelled)